

What we claim is:

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1. An adhesive for a disposable human waste management device:  
 said disposable human waste management device comprising a bag;  
 said bag comprising an aperture and a flange surrounding said aperture;  
 said flange comprising a wearer facing surface and a garment facing surface;  
 said wearer facing surface comprising an adhesive;  
 said adhesive having an initial peel strength ( $P_I$ ) and a final peel strength ( $P_F$ ) after exposure to water;  
 wherein the ratio of  $P_I$  to  $P_F$  is from 2:1 to 1:4; and,  
 wherein said adhesive has a water absorption capacity of at least 3% by weight.
2. The adhesive of Claim 1, wherein said ratio of  $P_I$  to  $P_F$  is from 2:1.25 to 2:4.
3. The adhesive of Claim 1, wherein said initial peel strength ( $P_I$ ) of said adhesive ranges from 0.1N/cm to 5.0N/cm.
4. The adhesive of Claim 3, wherein said initial peel strength ( $P_I$ ) of said adhesive ranges from 0.5N/cm to 3.0N/cm.
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5. The adhesive of Claim 1, wherein said adhesive is a layer having a thickness  $C$ ;  
 wherein said adhesive has a viscous modulus at a temperature of 25°C ( $G''_{25}(100 \text{ rad/sec})$ ); and,  
 wherein said viscous modulus ( $G''_{25}(100 \text{ rad/sec})$ ) is defined by the equation:  

$$G''_{25} \leq [(7.00 + C) \times 3000] \text{ Pa.}$$
6. The adhesive of Claim 5, wherein said viscous modulus ( $G''_{25}(100 \text{ rad/sec})$ ) is defined by the equation:  

$$G''_{25} \leq [(5.50 + C) \times 1700] \text{ Pa.}$$
7. The adhesive of Claim 1, wherein:  
 said adhesive has an elastic modulus at a temperature of 37°C ( $G'_{37}(1 \text{ rad/sec})$ ), and a viscous modulus at a temperature of 37°C ( $G''_{37}(1 \text{ rad/sec})$ );

wherein  $G'_{37}$ (1 rad/sec) ranges from 500 Pa to 20000 Pa;  
wherein  $G''_{37}$ (1 rad/sec) ranges from 100 Pa to 15000 Pa; and,  
wherein the ratio  $G'_{37}$ (1 rad/sec) /  $G''_{37}$ (1 rad/sec) ranges from 1 to 30.

8. The adhesive of Claim 7, wherein:

said elastic modulus ( $G'_{37}$  (1 rad/sec)) ranges from 700 Pa to 15000 Pa; and,  
wherein said viscous modulus ( $G''_{37}$ (1 rad/sec)) ranges from 100 Pa to 10000 Pa.

9. The adhesive of Claim 8, wherein:

said elastic modulus  $G'_{37}$  (1 rad/sec) ranges from 1000 Pa to 10000 Pa; and,  
wherein said viscous modulus  $G''_{37}$  (1 rad/sec) ranges from 300 Pa to 5000 Pa.

10. The adhesive of Claim 1, wherein said adhesive comprises:

a polymer selected from the group consisting of acrylics, sulphonated polymers, vinyl alcohols, vinyl pyrrolidone, polyethylene oxide, and mixtures thereof; and,  
a plasticizer selected from the group consisting of polyhydric alcohols, polyethylene glycols, glycerols, sorbitols, water, and combinations thereof.

11. The adhesive of Claim 10, wherein said adhesive is a hydrophilic-hydrophobic mixed phase adhesive.

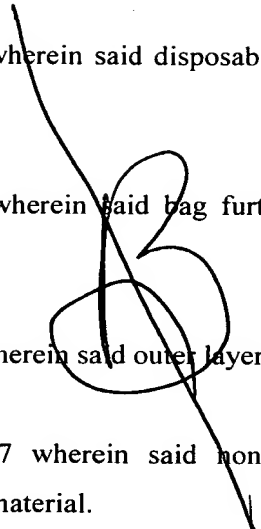
12. The adhesive of Claim 11, wherein the ratio of said hydrophilic components to said hydrophobic components ranges from 5:1 to 1:5.

13. The adhesive of Claim 10, wherein the ratio of said polymer to said plasticizer ranges between 1:100 and 100:1.

14. The adhesive of Claim 13, wherein the ratio of said polymer to said plasticizer ranges

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15. The adhesive of Claim 1, wherein said disposable human waste management device is a diaper.
  16. The adhesive of Claim 1 wherein said bag further comprises a multi-layered structure having an outer layer.
  17. The adhesive of Claim 16 wherein said outer layer is a non-woven material.
  18. The adhesive of Claim 17 wherein said non-woven outer layer is treated with a hydrophobic active surface material.
  19. The adhesive of Claim 1 wherein said adhesive is applied to said wearer facing surface at a basis weight from 20 g/m<sup>2</sup> to 2500 g/m<sup>2</sup>.

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